M_{1a} at the level of the seventh postnodal in the fore wings, and the last postnodal in the hind wings. Venation otherwise like that of *A. cyane*.

Abdomen: ground-colour of proximal half greenish blue, of distal half greenish brown; bronze-black markings on dorsum; segments 1 to 4 marked as in male; markings on 5 to 7 also as in male, but somewhat larger, and exposing less of the ground-colour; 8, 9, and 10 mostly, but not entirely, covered with bronze-black; 10 with the hind margin conspicuously notched in the mid-dorsal line. Anal appendages short, subconical, blackish. Ovipositor greenish brown, reaching to end of abdomen; palps projecting beyond end of abdomen, blackish, slightly recurved.

The types have been deposited in the British Museum (Natural History).

XVI.—*On a new Flat-fish of the Genus* Arnoglossus *from the Black Sea.* By Peter Schmidt, Curator of the Ichthyological Department of the Zoological Museum of the Imperial Academy of Sciences in Petrograd.

If we omit doubtful species, there are only three flat-fishes (Heterosomata) known from the Black Sea:—

(1) *Rhombus mœoticus*, Pall.
(2) *Pleuronectes flesus*, L.
(3) *Solea nasuta*, Pall.

It is therefore, perhaps, of some general interest that in the collections of the Zoological Museum of the Imperial Academy of Sciences in Petrograd I found a fourth and very interesting new species belonging to the genus *Arnoglossus*. In memory of the late eminent Russian ichthyologist Prof. K. F. Kessler, I have named this species *Arnoglossus kessleri*.

Arnoglossus kessleri, sp. n.

D. 74–76. A. 53–57. P. 9–11. V. 6. C. 17.
L. l. 38. Vert. 33.

Eyes on the left side. Body oval, with very short caudal peduncle. The height of the body is 38 % of the total length, the length of the head 21 %. The length of the caudal peduncle (without the part of the caudal fin covered with scales) is $\frac{1}{3}$ of its least height. The mouth is very

small and obliquely directed upwards. The posterior end of the maxilla is on a line through the anterior edges of the eyes. The body is covered with very large, ctenoid, deciduous scales. The lateral line has 38–40 scales with pores ; above the lateral line are 8, below 10 rows of scales ; the anterior part of the lateral line forms a distinct arch. The dorsal fin has 74–76 rays, and commences before the eye on the right (eyeless) side ; the two first rays are not prolonged, but their ends are free. The greatest height of the dorsal fin is behind its middle and equal to 10 % of the total length of the body. The anal fin has 53–57 rays ; its height is the same as that of the dorsal. The caudal fin has 17 rays, is rounded, and has the base covered with scales. The pectoral fins are not of the same size : the length of the left is 12 %, the length of the right 7·6 % of the total length of the body. The ventrals also are different—the left is twice as long as the right. Between the ventral fins near the anus is a projecting spine, formed apparently by the postclavicle and directed backward (the same spine is present in *Arnoglossus grohmanni*, Bon., but it seems to have been undescribed). The colour of the upper side is brownish, covered with black spots and points ; the eyeless side is yellowish. The small specimens of the south coasts of Crimea are very transparent, so that one can count the vertebræ (their number is 33), and one can see along the bases of the dorsal and anal fins two dark stripes extending from the body-cavity to the caudal peduncle. With the microscope one can detect that these stripes are ovaries with ripe eggs.

The length of the body is 46 to 66 mm., and specimens of 47 mm. are already full-grown and ripe.

This new species of the Black Sea is near to *Arnoglossus grohmanni*, Bon., of the Mediterranean, but differs in the smaller mouth, larger scales, fewer vertebræ (*A. grohmanni*, Bon., has 38 vertebræ), different number of rays in dorsal and anal fins, and absence of prolongations of the first two dorsal rays. The small size is very characteristic—it seems to me that this is the smallest flat-fish in the world.

Arnoglossus kessleri was found at two localities in the Black Sea : one specimen by Mr. Jagodovsky near Sukhum (on the east coast of the Black Sea), at a depth of 3–4 metres, and six specimens by Mr. Sernoff near Sudak (on the south coast of the Crimean peninsula), at a depth of 3–7 fathoms. It appears, therefore, that it has a wide distribution in the Black Sea. Probably it can be found there everywhere near the coasts.